



**MANAGEMENT OF CHANGE FORM**  
(REFER TO PROCEDURE EHS-I-006 FOR EXPLANATION OF THIS FORM)

DEPARTMENT: Waste Plant  
ORIGINATOR: Joe Vittone

MOC#: 183596  
DATE: 07/21/2016

SECTION A - TECHNICAL BASIS FOR PROPOSED CHANGE			
<b>Purpose and Technical Basis:</b>	Currently, the trench drains located around the clarifiers and SBC units drain directly into the storm sewer.		
<b>Description:</b>  <i>Attach additional paper if necessary</i>	This project will install an underground butterfly valve in the 6" line from the clarifier/SBC trench drain to storm sewer. The valve will have a riser post extending above ground with a handle for a quarter turn shutoff. This valve will be used to stop flow of material to the storm drain in the event of a leak or spill from equipment located in this area. <i>Valve will be normally closed and managed by utilities operators.</i>		
<b>Impact of Change On Env / Health / Safety:</b>  <i>If there will be no effects, describe the thought process used to determine this.</i>	Prevent an environmental release to the storm drain by utilizing the proposed isolation valve.		
SECTION B - DOCUMENTATION - Attach appropriate documentation illustrating proposed changes			
<input type="checkbox"/> Procedures	<input type="checkbox"/> Inspections, Testing, PM's	<input type="checkbox"/> AEC	<input type="checkbox"/> PHA'S
<input type="checkbox"/> PSM Documentation	<input type="checkbox"/> CHEMGEMS Specifications	<input type="checkbox"/> MI App Checklist	<input type="checkbox"/> LDAR
<input type="checkbox"/> MSDS Information	<input type="checkbox"/> Energy Control Plans	<input type="checkbox"/> DCS logic printout	<input type="checkbox"/> OJT's
<input type="checkbox"/> Training/Communication	<input type="checkbox"/> Alarm Response Tables	<input type="checkbox"/> DCS screen shots	<input type="checkbox"/> JSA's
<input type="checkbox"/> Quality Issues	<input type="checkbox"/> Customer Impact	<input type="checkbox"/> Other	
Affected Personnel Needing To Be Informed/Trained On Proposed Change			
<input checked="" type="checkbox"/> Operations	<input type="checkbox"/> I/E Technicians	<input type="checkbox"/> Community	
<input type="checkbox"/> Production Facilitators	<input type="checkbox"/> Engineering	<input type="checkbox"/> Regulatory Entities	
<input type="checkbox"/> Mechanics/Welders	<input type="checkbox"/> Contractor(s)	<input type="checkbox"/> Corporate	
<input type="checkbox"/> Electricians	<input type="checkbox"/> Office Personnel	<input type="checkbox"/> Other	
SECTION C - Is Change Permanent?		SECTION D - Is Change Temporary ?	
<input checked="" type="checkbox"/> YES Proposed Project Start Date <b>08/01/2016</b>	<input type="checkbox"/> YES From:	<input type="checkbox"/> YES From:	
<input type="checkbox"/> NO Proposed Project Completion Date <b>11/30/2016</b>	<input checked="" type="checkbox"/> NO To:	<input checked="" type="checkbox"/> NO To:	
SECTION E - Is Change Emergency ?		Returned To Original Service: ____/____/____	
<input type="checkbox"/> Yes Start:	<input checked="" type="checkbox"/> NO	Area Mgr./Designee Signature: _____	
Approval Received From:		Extended To: ____/____/____*	
<input type="checkbox"/> Ops. Mgr./Designee	<input type="checkbox"/> Env. Eng./Designee	Plant Managers Approval: Signature: _____ Date: _____  *Note: Temporary MOC's may be extended up to 6 months at a time	
<input type="checkbox"/> Plant Mgr./Designee (if requested)	<input type="checkbox"/> Technical Services Mgr./Designee		
<input type="checkbox"/> H&S Mgr./Specialist	<input type="checkbox"/> Area Mgr./Designee		
Approvals Received By:  _____ Signature Date			

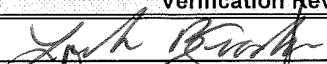
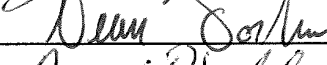
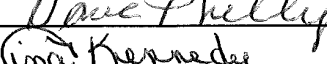
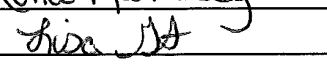
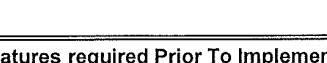





SECTION F - DESIGN SAFETY REVIEW		
<b>PHA.</b> Does the proposed change require a PHA? (i.e. What-if/Checklist, HazOp, Revalidation, Review) If yes indicate type of PHA in Action to be Taken section.	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
<b>PSSR.</b> Does the proposed change require a Pre-Start-up Safety Review (PSSR)? See EHS-I-067 for Requirements. Mandatory if change involves DCS Interface.	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
1. RELIEF AND BLOWDOWN		
Does the Proposed Change:	YES	NO
1. Introduce or alter any potential cause of over/under pressurizing of the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. In any way affect existing equipment installed to prevent over/under pressurization?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Introduce or alter any potential cause of raising/lowering the system temperature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Introduce a risk of creating/reducing vacuum in the system?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Have any critical relief devices been identified for verification of proper rating and installation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. AREA CLASSIFICATION		
Does the Proposed Change:	YES	NO
1. Introduce or alter the storage of flammable materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Introduce or alter the location of potential leaks of flammable materials?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Introduce new or alter existing electrical equipment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Does the new or altered electrical equipment need to be suitable for electrically classified areas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Require the installation of new or modified combustible liquid material handling systems? (Grounding action item required)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Require the installation of new or modified dust material handling systems? (Grounding action item required)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Affect area ventilation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A yes answer to any question in this section requires a review by the Electrical Engineer prior to routing for approval signatures.		
3. SAFETY CONSIDERATIONS		
Does the Proposed Change:	YES	NO
1. Require any additional safety equipment or layers of protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Alter or affect existing safety equipment or means of egress?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Require changes to the function or independence of existing equipment or layers of protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Alter or affect critical safety instrumented functions (SIF's)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Alter the noise level in the surrounding area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Increase the potential for exposure to any chemicals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Introduce a new or previously unused chemical/raw material?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Affect de-energization? (able to lock-out, drain materials)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Create any ergonomic concerns?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Affect any Battery Limit Valves (BLV)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Affect the overall security of the facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. Does this increase the risk of potential impact to plant personnel (employees and contractors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. Does the proposed change affect facility siting relative to both people and equipment in any of the following situations: temporary changes, before startup after a permanent change, or before startup after temporary change has been removed/closed/returned to original condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. If the proposed change affects replacement or demolition of piping or conduit, will the entire run be identified and clearly marked prior to work, to ensure safe work activity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Affect the safe transport of hazardous material? For ex., introducing a new hazardous material for transport or changing the method of transportation of the hazardous material.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SECTION F - DESIGN SAFETY REVIEW		
4. ENVIRONMENTAL CONSIDERATIONS <small>(Consult Env. Engineer for completion of this section)</small>		
	YES	NO
1. Will there be a potential increase in the maximum production rate, which exceeds the currently permitted design capacity of the facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Will the replacement or modification change any of the basic parameters of the process unit, such as temperature, pressure, etc?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Will the change cause increased emissions of regulated pollutants during installation, implementation, or during operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Will there be any new vents added?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Will the change add, remove or modify any permitted emission units <i>(Example: reactors, wash tanks, dryers, centrifuges, pack-out bins, screening towers, or styrene or pentane storage.)</i> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Will the project include the installation of a stationary engine with a ≤ 500 hp? If so, a non-resettable hour meter shall be installed to record operational hours and PMs shall be consistent with RICE NESHAP regulations and the manufacturer's recommended preventative maintenance.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Will the project results in the increase in Facility's total throughput of natural gas?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is there the potential to generate a new waste or increase the quantity of an existing waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Will there be a change in the wastewater characteristics? If the project causes an increase to the discharge of wastewater to the Public Sanitary District, provide calculations with the MOC.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Does the project add or remove LDAR Components (Pumps, PRVs, Valves, and Connectors) that come in contact with styrene or pentane?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Does the project increase risk to off-site residential & environmental receptors?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. Will the change affect the control of processes?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. Will the change affect the composition or physical properties of the final product?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. Will new chemicals be brought onsite anytime during the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Does an evaluation of chemical compatibility need to be conducted during the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. Will the project involve decommissioning or demolition of equipment or structure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17. If yes to 16, does National Emissions Standards for Hazardous Air Pollutants (NESHAP) or deconstruction permit apply?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Will this project require a portable engine?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. OPERATION AND DESIGN		
Does the Proposed Change:	YES	NO
1. Affect the process or equipment upstream/downstream of the change?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Affect access to process or equipment/controls for personnel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Introduce any new or affect existing interlocks or alarms systems?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Affect manpower or qualified personnel?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Affect the loads/strengths of existing foundations, structures, vessels, or pipe racks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Impact requirements of existing or proposed piping supports? <i>(Needs to be adequately designed for expected stresses due to pressure and thermal loadings.)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Affect process chemistry? (reactivity/compatibility)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Affect maximum intended inventory, which would require updating maximum inventory tables?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Affect safe upper/lower limits for such items as temperature, process flows or compositions?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Affect material/energy balances?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Affect plant utility resources? (i.e. steam, water, electricity, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. Affect equipment with heat-up/cool-down cycling requiring bolt retightening after start-up?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. Is an exception/revision to design codes or standards (CHEM-GEMS, etc.) required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. DCS / SIS / PLC LOGIC & PROGRAMMING		
Does the Proposed Change:	YES	NO
1. Alter the DCS/ SIS/ PLC Software logic of process operations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Alter the DCS response (alarm settings) for temperature, pressure, or timing? (Describe in Section A)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Alter the DCS screen interface with the DCS operator? (Attach screen shots showing old and new view)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SECTION G - AFFECTS ON PROCEDURES, TRAINING, AND DOCUMENTATION		
Will the Proposed Change:	YES	NO
1. Introduce new or impact existing operational procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Introduce new or impact existing maintenance procedures?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Add or Remove equipment/instrumentation? If yes, contact the Design/Drafting Technician.(Pre-PSSR)	<input checked="" type="checkbox"/> <i>g</i>	<input checked="" type="checkbox"/>
4. If equipment/instrumentation is being added/removed, ITPM Request Form MIP-F-100 shall be completed by the MOC Originator, and approved form sent to the Maintenance Support Technician. (Post-PSSR)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Require training for operational or maintenance personnel? (contact Training and Procedure Coordinator)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Require notification for operational or maintenance personnel?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Require updating controlled drawings? * (PFD'S, LDAR, P&ID's, Floor Plans, Electrical Single Lines, Loop Drawings/Electrical Schematics, MCC arrangement, MI Iso Drawings) <b>Attach relevant, red-lined drawings.</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Require updating equipment files? (If yes, include completed PSI equipment spec sheet)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Require a spare parts list and inventory to be developed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Require major project spare equipment to be turned over to maintenance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. Require equipment labeling in the field?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Require updating of Alarm Response Tables or Operating Limits?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13. Require a new/modification of existing energy control plans?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14. Require a new/modification of existing blinding lists?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Require a new/modification of existing Confined Space entry checklists?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. Cause any PSM/RMP applicability issues?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17. Cause a change in PSM/RMP program level?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18. Will this change have any effect on the overall plant facility siting issues?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19. Increase or decrease the impact contour for worst-case scenario by a factor of two or more?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20. Will this MOC supersede /interfere with any other Temporary/Emergency/Permanent MOC's?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21. Is there a need to update the EPS-I-004, Chemical Compatibility Matrix?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22. Is a Layer of Protection Analysis (LOPA) study required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23. Will this affect the Interlock Matrix?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24. Require updating of electrical energy consumption spreadsheet? Update required for any MCC, CB panel or bus bar connection additions or alterations.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
25. Will this change impact Proprietary Technology including product, process, equipment, technical data, or other trade secret information licensed to FHR by third parties If yes, contact the Proprietary Technology Coordinator.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
* NOTE: Refer to Engineering Equipment Location Database for a list of affected documents, sorted by Location Number.		

Any questions with a 'YES' answer, requires follow-up activity. List the action(s) to be taken to resolve any issues identified in 'Section F' and 'Section G'				
Item No.	Action To Be Completed <u>Prior to PSSR</u>	Responsible Party	Target Completion Date	Approving Manager
G-1	Modify Procedure EHS-I-018 to Include New Valve	Chapman	11/30/2016	Vittone
G-6a	Notify Operators On-Site of Changes prior to PSSR	Green	11/30/2016	Vittone
G-7a	Place Redlined Drawings in Drawing Book	Vittone	11/30/2016	Vittone
G-3	REQUEST LOCATION NUMBER FROM DDT	VIT TONE	11/30/2016	VIT TONE
F-PSSR	Conduct Pre Start-up Safety Review	Vittone	11/30/2016	Vittone



MOC APPROVAL FORM		
Originator:		MOC No. 183596
MOC Packet Completeness Verification Review		
Title/Position	Verification Review Signatures	Date
Drafting Tech, or Designee		8-2-16
MI Coordinator, or Designee		8-3-16
Maintenance Tech from appropriate area		9-19-16
Operator from affected area		9-19-16
Training & Procedures Coordinator		9-19-16
Electrical Engineer (Section F.2)		
Signatures required Prior To Implementation of MOC.		
Title/Position	Authorizing Signatures	Date
Area Manager/Facilitator or Designee		9-20-16
Technical Services Manager or Designee		9-21-16
H&S Specialist or Designee		9-21-16
Operations / Pilot Plant / QC Manager or Designee		9-21-16
Environment Engineer or Designee		9-22-16
Other Reviewers (as requested by any of the Authorizing signers)		
Title/Position	Review Signature	Date
Plant Manager or Designee		
VERIFICATION OF MOC CLOSURE		
By signing below: The Originator of this MOC confirms that all action items have been completed & that equipment/documentation in this change is set to start up.		
MOC closure requires the Originators Signature		
MOC Originator:		





